

# POST-DISASTER RECONSTRUCTION GUIDELINES AND PROTOCOLS

FOR THE CONSERVATION OF COASTAL RESOURCES AND  
PROTECTION OF COASTAL COMMUNITIES, MAUI COUNTY

June 4, 2015

James Buika, County of Maui Planning Department

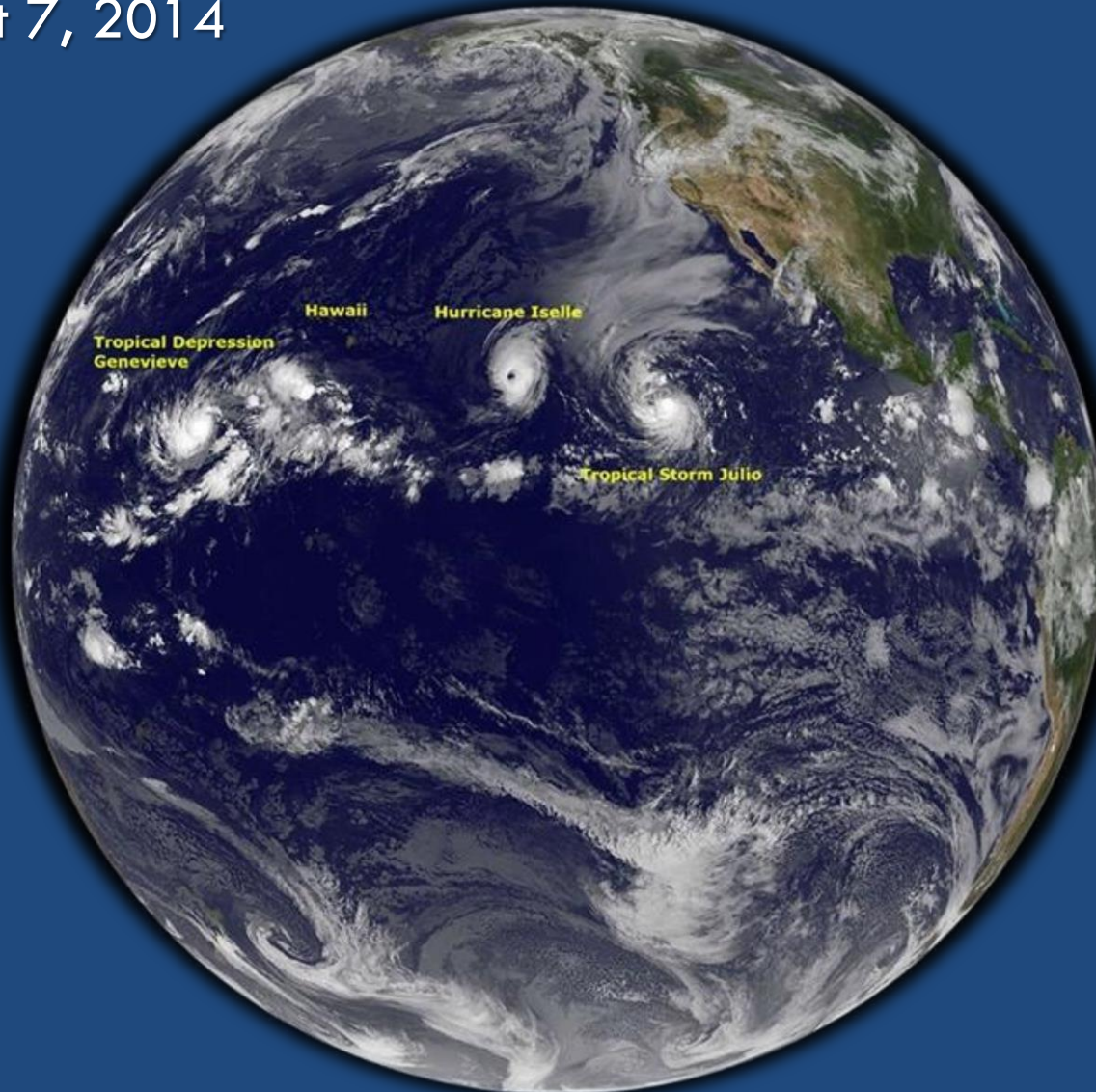
Tara Owens, University of Hawaii Sea Grant

**“Building Back Safer, Stronger, Smarter!”**



# IT'S NOT IF, BUT WHEN...

August 7, 2014







**SUNSET BEACH, OAHU: October 2013**

*Image: Dolan Eversole, University of Hawai'i Sea Grant College Program*



# HOW DO WE STREAMLINE?

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**FEMA/Private Insurance  
Requirements**



**County  
Liability Concerns**

**1,000s of Permits  
Limited Staff  
Political Pressure**

# RECONSTRUCTION REVIEW

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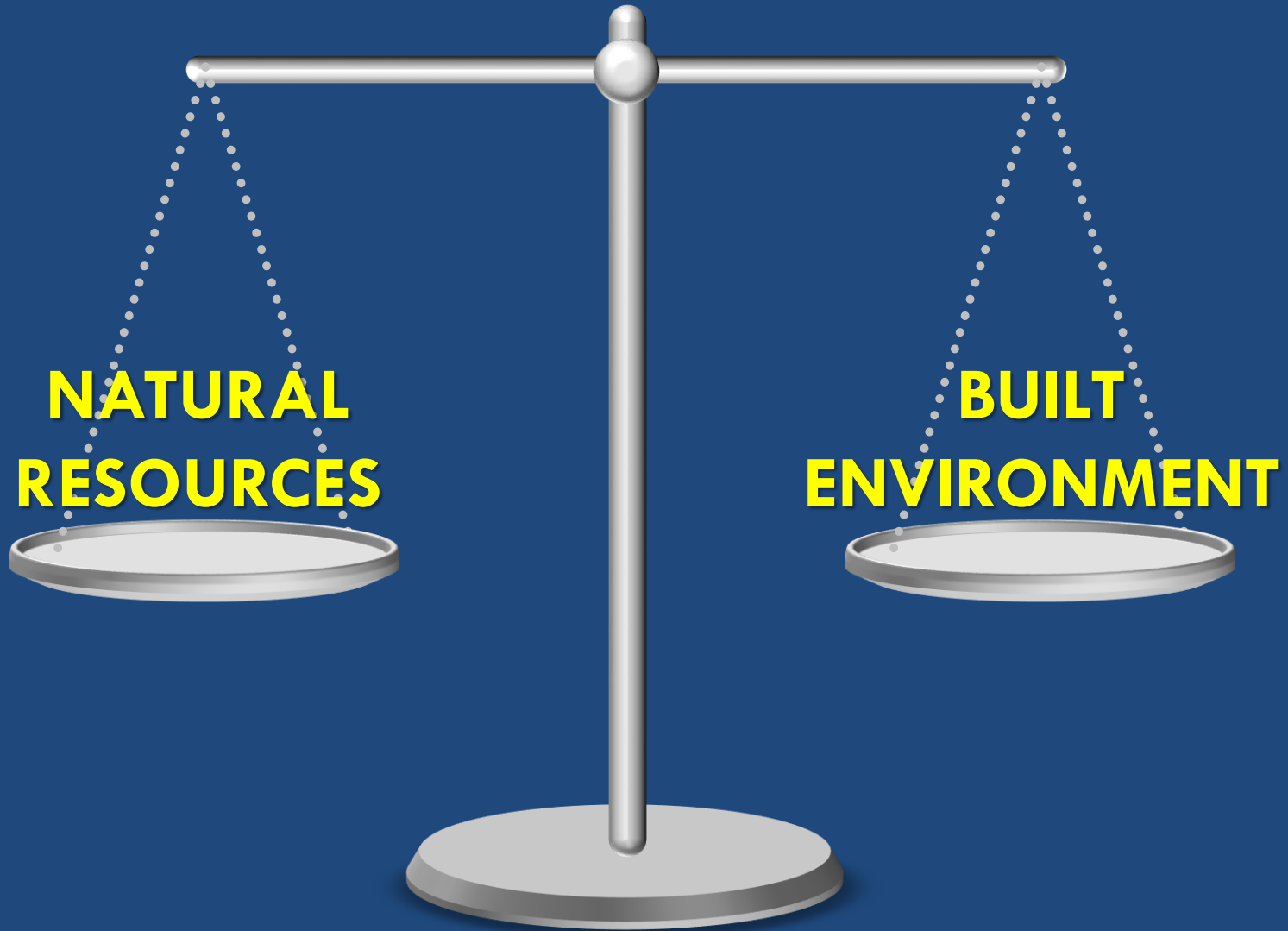


**REGULATORY  
CONTROL**

**RECOVERY  
SPEED**

# RECONSTRUCTION REVIEW

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# PROJECT GOALS & OBJECTIVES

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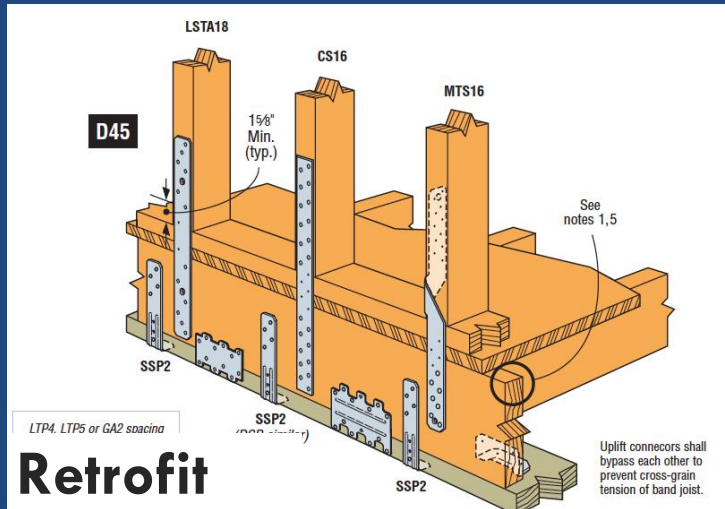
Engage community stakeholders to develop RGPs that:

- Expedite the rebuilding process
- Triage actions to address immediate and long-term needs
- Protect sensitive environmental and cultural resources
- Respond in a planned manner without arbitrary and capricious decisions
- Incorporate mitigation and adaption strategies to become a more resilient community

“Building Back Safer, Stronger, Smarter!”

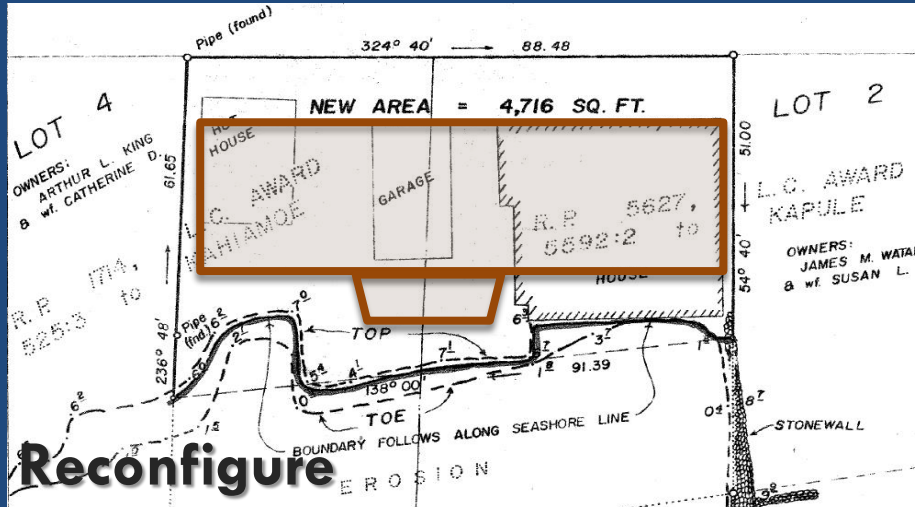


# MITIGATION STRATEGIES





# ADAPTATION STRATEGIES



# COMMUNITY WORKSHOPS



Molokai



Kihei



Lahaina



Hana

*108 participants  
3.5 hour workshops*



Paia



# COMMUNITY WORKSHOP PROCESS





# COMMUNITY MEDIA OUTREACH

- News media
- Social media
- Statewide newsletter
- National publication
- Int'l competition

In the Climate CoLab, you can work with people from all over the world to create proposals for what to do about climate change.

[LEARN MORE](#) [GET INVOLVED](#)

The Climate CoLab is a project of the MIT Center for Collective Intelligence in collaboration with many other organizations.

15+ days until the Climate CoLab Conference

**Featured Winners** [see all proposals](#)

**A Carbon Tax in Pro-Growth Fiscal Reform**  
Use a carbon tax for pro-growth tax reform, protecting the poor, deficit reduction, and reducing less efficient policies.

**Don't Discount Our Future**  
Make Our Economic Reasoning Consistent with Intergenerational Justice  
Empower youth to advocate for a just valuation of their future in the economics of climate change, thus unlocking ambitious climate action.

**Food bikes: the low capital, low footprint alternative to food trucks**

**Climate CoLab Conference 2014**  
**Crowds and Climate FROM IDEAS TO ACTION**  
November 6 & 7, 2014  
Now open for registration  
Contribute to our crowdfunding campaign.

**Recent News**  
Oct 21: New speakers announced!  
Oct 17: Anthony Leiserowitz & Jeremy Gifford to keynote Climate & Climate conference  
Oct 2: Projecting the 2014 Climate CoLab winners  
Sept 30: Climate CoLab celebrates 30,000 members  
See news features in ClimateWire, Grist, Discovery News, Popular Science, Guardian, and PBS NOW, More...

**CoLab Activities**

**The Maui News**  
Winner of 16 Society of Professional Journalists' 2013 Excellence in Journalism Awards

**Local News Opinion Bl**

**BREAKING NEWS» The**

**Local News**

- Breaking News
- Local News
- Hawaii News
- Business
- Obituaries -- see also Online Newspaper Ads/In Memoriam
- Entertainment
- On The Campaign Trail
- Community
- Religion

**LAHAINA NEWS**

Local News

- Local News
- Business
- Community News
- National News
- International News
- Entertainment

**Workshop will help West Maui prepare for a disaster**  
October 9, 2014  
BY LOUISE ROCKETT, Lahaina News

Save | Comments (1) | Post a comment

WEST MAUI - "In a coastal community, it's not 'if' but 'when' the next storm comes," and "Luck is with the prepared" were two PowerPoint introductory messages at the Maui County Post-Disaster Reconstruction Guidelines and Protocols Workshop held last week Tuesday at Lahaina Civic Center.

Through a \$178,000 endowment from the National Oceanic and Atmospheric Administration (NOAA) Sea Grant Program, a team of island specialists is on a mission to draft post-disaster procedures and strategies "to accommodate expeditious reconstruction while conserving valued coastal resources and protecting sensitive ecosystems."


The tactical approach is "to build back safer, stronger and smarter." James Bullock, Maui County Coastal Zone Management planner, and

**Project aims to speed rebuilding when necessary**  
August 9, 2014  
By MELISSA TANJJI - Staff Writer (mtanji@mauinews.com), The Maui News

Save | Post a comment

If Tropical Storm Iselle had caused widespread damage to homes or property, officials and agencies would have encouraged owners to graphically document the damage with photos.

**POST-DISASTER RECONSTRUCTION GUIDELINES AND PROTOCOLS MEETING**




Participants of the first Post Disaster Reconstruction Guidelines and Protocols meeting in Hāna. August 28, 2014.

Members of the Hāna community met on July 28, in Hāna to develop Post-Disaster Reconstruction Guidelines and Protocols plans. They hope to accommodate expeditious reconstruction while conserving valued coastal resources and protecting sensitive ecosystems. Following the destruction were damaged

Strengthening our economy; Supporting the community's sustainability and quality of life goals.

"I am glad to see our communities working together and helping each other," said Sen. English, "Collaboration to rebuild and being proactive in disaster preparedness is a good way to ensure our resilience and ability to overcome adversity from a natural disaster."

The plan includes the islands of Maui, Moloka'i, and Lāna'i, and will especially consider our isolated and rural communities that are vulnerable to coastal storms. A yearlong planning process begins Jan. 2014 - Jan. 2015 and will include five community workshop meetings on the islands of Moloka'i and Lāna'i and in Hāna, Lahaina, and Kihei on the island of Maui.



Vol.14 Issue 12 pg.3 - Aug. 31, 2014

AT&T 12:05 PM 59% BATTERY

**PHOTO**

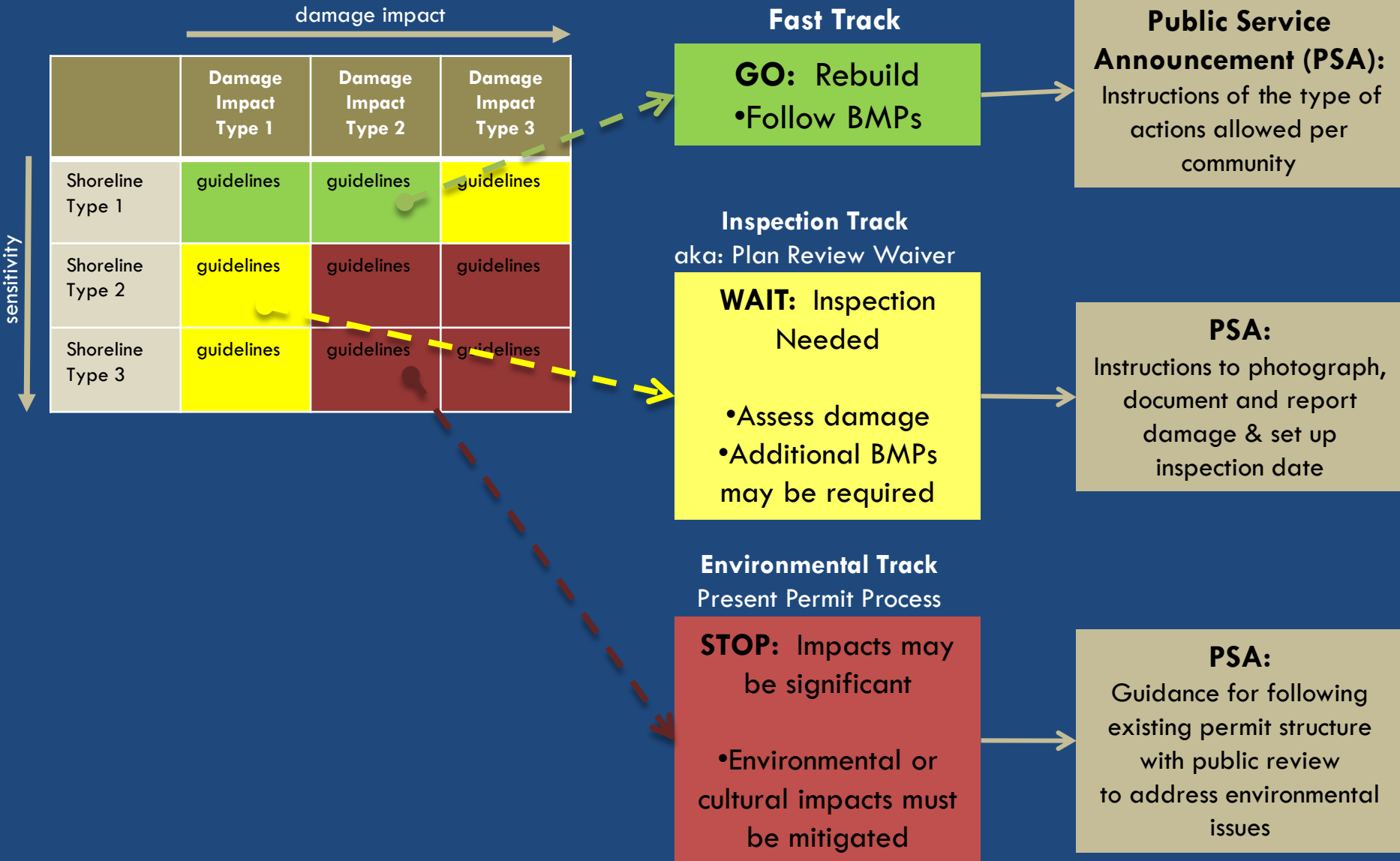






















♥ elig49, honukine, nancyjn  
♥ suzannefrew Fantastic East #Maui community participation at last night's Hana Coastal Storms Workshop. Big mahalo to Senator Kalani English for his insights - and for letting me use his camera! #Hawaii #publicservice #saferstrongersmarter #storms

# GUIDELINES

# PROTOCOLS

# STREAMLINED ACTIONS



<div> <div>DAMAGE TYPE</div> <div>ENVIRONMENTAL SENSITIVITY</div> </div>			A. INTERIOR BLDG.	B. NON-STRUCT. BLDG.	C. ROOF REPAIR / REPLACE	D. ACCESSORY OR AMENITY	E. LOSS OF UTILITIES	F. BLDG. REPAIR (<50%)	G. BLDG. FAILURE (>50%)	H. SEAWALL REPAIR	I. LOSS OF BEACH /SHOREFRONT	J. BLUFF FAILURE
		MOLOKAI LOCATION										
1. STABLE CLIFF		Not Applicable	A1	B1	C1	D1	E1	F1	G1	H1	I1	J1
2. HARDENED COASTLINE		Wavecrest Condominium	A2	B2	C2	D2	E2	F2	G2	H2	I2	J2
3. LOW, ROCKY VOLCANIC		East of Kumimi Kalaupapa	A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
4. STREAM & GULCH		Kawela East of Puko'o	A4	B4	C4	D4	E4	F4	G4	H4	I4	J4
5. ERODIBLE BLUFF		Not Applicable	A5	B5	C5	D5	E5	F5	G5	H5	I5	J5
6. SEASONAL SANDY BEACH		Kepuhi Beach, Kaluakoi	A6	B6	C6	D6	E6	F6	G6	H6	I6	J6
7. INTERMIT. SANDY BEACH		Hotel Molokai Fishponds	A7	B7	C7	D7	E7	F7	G7	H7	I7	J7
8. COBBLE BEACH		Honouliwai	A8	B8	C8	D8	E8	F8	G8	H8	I8	J8
9. WETLAND/ LOW-LYING		Kaunakakai to Kumimi Kapaakea, Kapuaiwa, Kalama'ula	A9	B9	C9	D9	E9	F9	G9	H9	I9	J9
10. SANDY BEACH		East of Puko'o Harbor Papohaku Dune Lots	A10	B10	C10	D10	E10	F10	G10	H10	I10	J10



# DECISION MATRIX "GAMEBOARD"

Molokai Community: May 14, 2014

TYPE	ENVIRONMENTAL SENSITIVITY	MOLOKAI LOCATION	A. INTERIOR BLDG.	B. NON-STRUCT. BLDG.	C. ROOF REPAIR / REPLACE	D. ACCESSORY OR AMENITY	E. LOSS OF UTILITIES	F. BLDG. REPAIR (<50%)	G. BLDG. FAILURE (>50%)	H. SEAWALL REPAIR	I. LOSS OF BEACH / SHOREFRONT	J. BLUFF FAILURE
1. STABLE CLIFF		Not Applicable	A1	B1	C1	D1	E1	F1	G1	H1	I1	J1
2. HARDENED COASTLINE		Wavecrest Condominium	A2	B2	C2	D2	E2	F2	G2	H2	I2	J2
3. LOW, ROCKY VOLCANIC		East of Kumimi Kalaupapa	A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
4. STREAM & GULCH		Kawela East of Puko'o	A4	B4	C4	D4	E4	F4	G4	H4	I4	J4
5. ERODIBLE BLUFF		Not Applicable	A5	B5	C5	D5	E5	F5	G5	H5	I5	J5
6. SEASONAL SANDY BEACH		Kepuhi Beach, Kaluakoi	A6	B6	C6	D6	E6	F6	G6	H6	I6	J6
7. INTERMIT. SANDY BEACH		Hotel Molokai Fishponds	A7	B7	C7	D7	E7	F7	G7	H7	I7	J7
8. COBBLE BEACH		Honouliwai	A8	B8	C8	D8	E8	F8	G8	H8	I8	J8
9. WETLAND/ LOW-LYING		Kaunakakai to Kumimi Kapaakea, Kapuaia, Kalama'ula	A9	B9	C9	D9	E9	F9	G9	H9	I9	J9
10. SANDY BEACH		East of Puko'o Harbor Papohaku Dune Lots	A10	B10	C10	D10	E10	F10	G10	H10	I10	J10

# Molokai

1	green	Expedited Permitting
2	green/yellow	Inspection Required
3	yellow	
4	yellow/red	
5	red	Normal Permit Procedure
n/a	gray	Not Applicable

Environmental Sensitivity	Team	Damage Type									
		Interior Building Repairs	Non Structural Building Repairs	Roof Repair / Replacement	Acessory Structure	Loss of Utilities	Building Repair (<50%)	Building Failure (>50%)	Seawall Repair	Loss of Beach Request for New Seawall	Bluff Failure Request for Grading or Retaining Wall
Stable cliff	1	1	1	1	n/a	3	3	4	3	n/a	n/a
	2	1	1	3	4	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	n/a	n/a	n/a	n/a
Hardened Coastline	1	1	1	2	1	3	3	4	3	5	5
	2	1	1	3	4	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	3	n/a	5	5
Low, Rocky, Volcanic	1	1	1	2	1	3	3	4	3	5	5
	2	1	1	3	4	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	3	n/a	5	5
Stream and Gulch	1	1	1	2	3	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	3	n/a	5	5
Erodible Bluff	1	1	1	2	n/a	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	3	n/a	5	5
Seasonal Sandy Beach	1	1	1	2	3	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	5	5	5	5
Intermittent Sandy Beach	1	1	1	2	1	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	5	5	5	5
Pebble Beach	1	1	1	2	1	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	5	5	5	5
Wetland/Low-Lying	1	1	1	2	1	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	5	5	5	5
Sandy Beach	1	1	1	1	1	3	3	4	3	5	5
	2	1	1	3	5	1	2	2	5	5	n/a
	3	1	1	1	1	3	3	5	5	5	5

Hana

1	green	Expedited Permitting
2	green/yellow	Inspection Required
3	yellow	
4	yellow/red	
5	red	Normal Permit Procedure
n/a	gray	Not Applicable

Environmental Sensitivity	Team	Damage Type									
		Interior Building Repairs	Non Structural Building Repairs	Roof Repair / Replacement	Accessory Structure	Loss of Utilities	Building Repair (<50%)	Building Failure (>50%)	Seawall Repair	Loss of Beach Request for New Seawall	Bluff Failure Request for Grading or Retaining Wall
Stable cliff	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2	1	1	3	1	3	4	5	N/A	N/A	1
	3	1	1	4	3	3	1	3	N/A	5	5
	4	1	1	2	2	3	3	3	1	1	4
	5	1	1	1	1	1	1	3	N/A	N/A	N/A
Hardened Coastline	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	N/A	N/A
	2	1	1	3	1	5	5	5	1	N/A	1
	3	1	1	4	3	3	1	3	3	4	5
	4	1	1	2	2	3	3	3	2	3	4
	5	1	1	1	1	1	1	3	N/A	N/A	N/A
Low, Rocky, Volcanic	1	1	1	1	1	1	2	3	N/A	N/A	N/A
	2	1	1	3	1	5	4	5	1	N/A	1
	3	1	1	4	3	3	1	3	3	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	1	3	N/A	N/A	N/A
Stream and Gulch	1	1	1	1	1	1	2	3	N/A	N/A	N/A
	2	1	1	3	1	3	5	5	1	5	1
	3	1	1	4	3	3	1	3	N/A	4	5
	4	1	1	2	2	3	3	3	2	2	4
	5	1	1	1	1	3	3	5	N/A	N/A	4
Erodible Bluff	1	N/A	N/A	1	N/A	1	N/A	N/A	N/A	N/A	N/A
	2	1	1	3	1	3	4	5	1	N/A	1
	3	1	1	4	3	3	1	3	N/A	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	5
Seasonal Sandy Beach	1	N/A	N/A	1	N/A	1	N/A	N/A	N/A	N/A	N/A
	2	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3	1	1	4	3	3	1	3	1	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	
Intermittent Sandy Beach	1	N/A	N/A	1	N/A	1	N/A	N/A	N/A	N/A	N/A
	2	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3	1	1	4	3	3	1	3	1	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	N/A
Pebble Beach	1	1	1	1	N/A	1	2	3	N/A	N/A	N/A
	2	1	1	3	1	5	5	5	1	5	5
	3	1	1	4	3	3	1	3	N/A	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	N/A
Wetland/Low-Lying	1	1	1	1	N/A	1	2	4	N/A	N/A	N/A
	2	1	1	3	1	5	5	5	1	5	5
	3	1	1	4	3	3	1	3	N/A	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	N/A
Sandy Beach	1	1	1	1	N/A	1	2	4	N/A	5	N/A
	2	1	1	3	1	5	5	5	1	5	5
	3	1	1	4	3	3	1	3	1	4	5
	4	1	1	2	2	3	3	3	1	2	4
	5	1	1	1	1	1	3	5	5	5	N/A



1	green	Expedited Permitting
2	green/yellow	Inspection Required
3	yellow	
4	yellow/red	
5	red	Normal Permit Procedure
n/a	gray	Not Applicable

Environmental Sensitivity	Team	Damage Type									
		Interior Building Repairs	Non Structural Building Repairs	Roof Repair / Replacement	Accessory Structure	Loss of Utilities	Building Repair (<50%)	Building Failure (>50%)	Seawall Repair	Loss of Beach Request for New Seawall	Bluff Failure Request for Grading or Retaining Wall
Stable cliff	1	1	1	1	1	1	1	3	1	4	n/a
	2	1	1	2	1	3	1	1	3	1	1
	3	1	1	1	5	3	3	4	n/a	5	5
	4	1	1	1	2	3	4	2	4	n/a	n/a
Hardened Coastline	1	1	1	1	1	1	1	3	1	4	n/a
	2	1	1	2	1	3	1	1	n/a	2	1
	3	1	1	1	5	3	3	5	5	5	5
	4	1	1	1	2	3	4	3	4	4	n/a
Low, Rocky, Volcanic	1	1	1	1	1	1	1	3	1	4	n/a
	2	1	1	2	1	3	2	1	5	3	1
	3	1	1	1	5	3	3	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Stream and Gulch	1	1	1	1	1	1	1	3	1	4	n/a
	2	1	1	2	5	3	3	5	5	3	3
	3	1	1	1	5	3	5	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Erodible Bluff	1	1	1	1	3	1	3	3	1	4	4
	2	1	1	2	5	3	3	5	5	1	5
	3	1	3	1	5	3	5	4	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	5
Seasonal Sandy Beach	1	1	1	1	3	1	3	3	1	4	n/a
	2	1	1	2	5	3	3	5	5	5	5
	3	1	1	1	5	3	5	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Intermittent Sandy Beach	1	1	1	1	3	1	3	3	3	4	4
	2	1	1	2	5	3	3	5	5	5	5
	3	1	1	1	5	3	5	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Pebble Beach	1	1	1	1	3	1	3	3	3	4	5
	2	1	1	2	5	3	3	5	5	5	5
	3	1	1	1	5	3	5	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Wetland/Low-Lying	1	1	1	1	3	1	3	3	3	4	5
	2	1	1	2	5	3	3	5	5	5	5
	3	1	1	1	5	3	5	5	n/a	5	5
	4	1	1	1	3	3	5	3	5	4	n/a
Sandy Beach	1	1	1	1	3	1	3	3	3	4	5
	2	1	1	2	5	3	3	5	5	5	5
	3	1	4	1	5	3	5	5	n/a	5	5

# Lahaina

1	green	Expedited Permitting
2	green/yellow	Inspection Required
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4	yellow/red	
5	red	Normal Permit Procedure
n/a	gray	Not Applicable

Environmental Sensitivity	Team	Damage Type									
		Interior Building Repairs	Non Structural Building Repairs	Roof Repair / Replacement	Acessory Structure	Loss of Utilities	Building Repair (<50%)	Building Failure (>50%)	Seawall Repair	Loss of Beach Request for New Seawall	Bluff Failure Request for Grading or Retaining Wall
Stable cliff	1	1	1	3	3	2	3	3	n/a	n/a	n/a
	2	1	1	2	2	1	2	3	5	5	5
	3	1	1	2	2	1	2	5	5	5	5
Hardened Coastline	1	1	1	3	3	2	3	3	5	5	n/a
	2	1	1	2	2	1	2	4	5	5	5
	3	1	1	1	1	3	3	3	1	5	5
Low, Rocky, Volcanic	1	1	1	3	3	2	3	3	5	5	n/a
	2	1	1	2	2	1	2	4	5	5	5
	3	1	1	1	1	3	3	3	1	5	5
Stream and Gulch	1	1	1	3	3	2	3	3	5	5	n/a
	2	1	1	2	2	1	2	4	5	5	5
	3	1	1	1	3	3	3	3	1	5	5
Erodible Bluff	1	1	1	3	3	2	3	4	5	5	5
	2	1	1	2	2	1	2	5	5	5	5
	3	1	1	1	3	3	3	3	1	5	5
Seasonal Sandy Beach	1	1	1	3	3	2	4	3	5	5	n/a
	2	1	1	2	2	1	2	5	5	5	5
	3	1	1	1	3	3	3	3	1	5	5
Intermittent Sandy Beach	1	1	1	3	3	2	3	3	5	5	n/a
	2	1	1	2	2	1	2	5	5	5	5
	3	1	1	1	3	3	3	3	1	5	5
Pebble Beach	1	1	1	3	3	2	3	3	5	5	n/a
	2	1	1	2	2	1	2	5	5	5	5
	3	1	1	1	3	3	3	3	1	5	5
Wetland/Low-Lying	1	1	1	3	3	2	3	4	5	5	n/a
	2	1	1	2	2	1	2	5	5	5	5
	3	1	1	1	3	3	3	3	4	5	5
Sandy Beach	1	1	1	3	5	2	4	4	5	5	n/a
	2	1	1	2	2	1	2	5	5	5	5

1	green	Expedited Permitting
2	green/yellow	Inspection Required
3	yellow	
4	yellow/red	
5	red	Normal Permit Procedure
n/a	gray	Not Applicable

Environmental Sensitivity	Team	Damage Type									
		Interior Building Repairs	Non Structural Building Repairs	Roof Repair / Replacement	Accessory Structure	Loss of Utilities	Building Repair (<50%)	Building Failure (>50%)	Seawall Repair	Loss of Beach Request for New Seawall	Bluff Failure Request for Grading or Retaining Wall
Stable cliff	1	1	1	2	2	2	2	4	5	5	5
	2	1	1	1	5	3	3	4	1	5	5
	3	1	1	2	1	3	3	4	1	1	5
	4	1	1	1	2	2	3	5	n/a	1	n/a
Hardened Coastline	1	1	1	2	2	2	1	3	3	3	5
	2	1	1	1	5	3	3	4	3	5	5
	3	1	1	2	3	3	3	4	3	5	5
	4	1	1	1	2	2	3	5	2	1	5
Low, Rocky, Volcanic	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	3	4	5	5	5
	3	1	1	2	2	3	3	4	3	5	5
	4	1	1	1	2	2	3	5	n/a	3	5
Stream and Gulch	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	4	5	5	5	5
	3	1	1	2	2	3	3	4	3	5	5
	4	1	1	1	2	2	4	5	n/a	3	5
Erodible Bluff	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	4	5	3	5	5
	3	1	1	2	2	3	3	5	3	5	5
	4	1	1	1	2	2	4	5	n/a	3	5
Seasonal Sandy Beach	1	1	1	2	2	2	1	3	3	3	5
	2	1	1	1	5	3	4	3	3	5	5
	3	1	1	2	2	3	3	5	4	5	5
	4	1	1	1	2	2	3	5	n/a	3	5
Intermittent Sandy Beach	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	4	3	3	5	5
	3	1	1	2	2	3	3	5	4	5	5
	4	1	1	1	2	2	n/a	5	n/a	1	5
Pebble Beach	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	3	3	3	5	5
	3	1	1	2	2	3	3	5	4	5	5
	4	1	1	1	2	2	3	5	n/a	1	5
Wetland/Low-Lying	1	1	1	2	2	2	1	4	5	5	5
	2	1	1	1	5	3	4	5	5	5	5
	3	1	1	2	2	3	3	5	4	5	5
	4	1	1	1	2	2	4	5	n/a	3	5
Sandy Beach	1	1	1	2	2	2	1	3	3	3	5
	2	1	1	1	5	3	4	5	3	5	5
	3	1	1	2	2	3	3	5	4	5	5
	4	1	1	1	3	2	4	5	n/a	3	5



# COMMUNITY FEEDBACK

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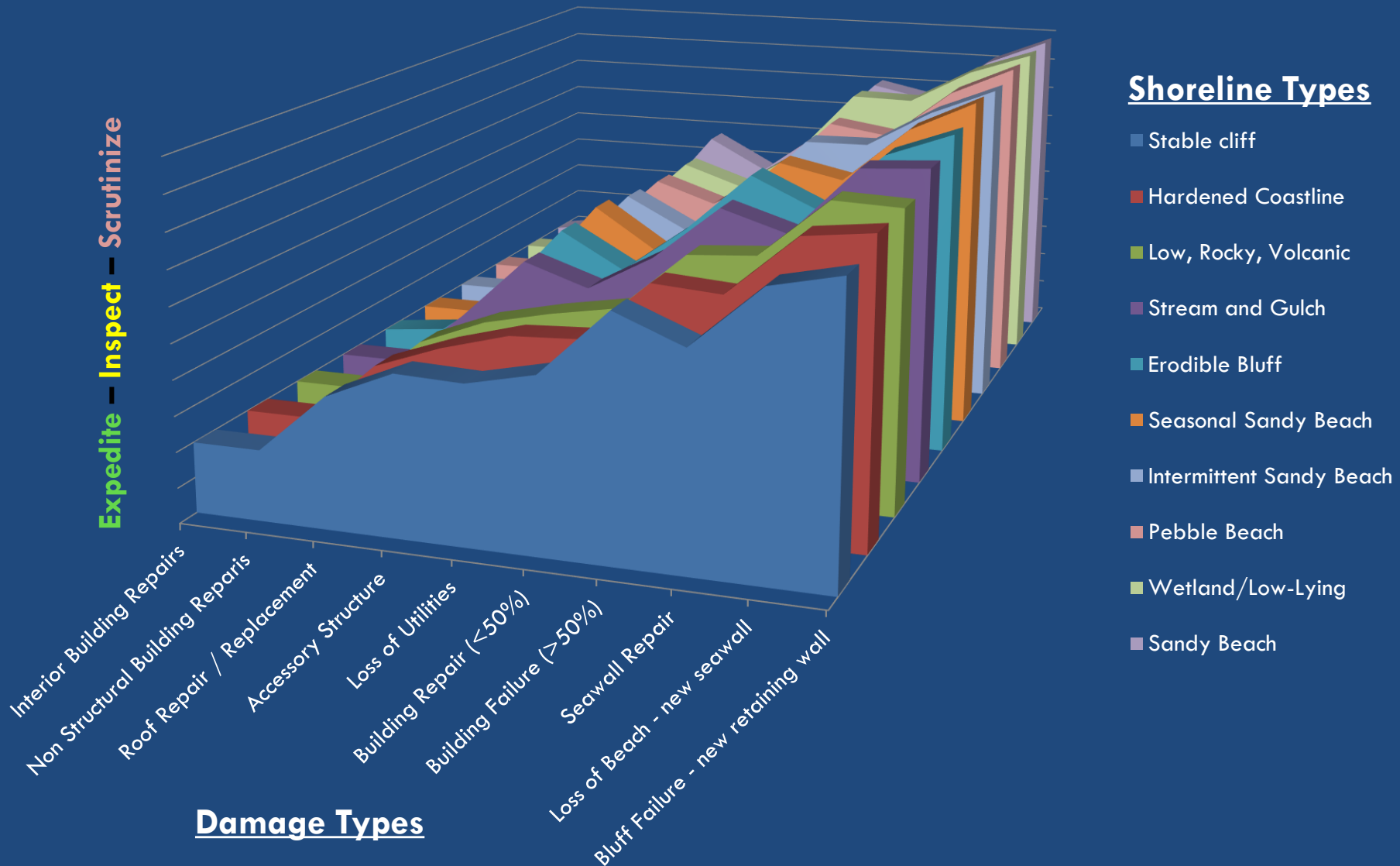
## COMMON THREADS:

- Pre-deputized inspectors
- Education materials/outreach
- Priority of health and safety
- Pre-disaster resource plans
- One-stop shop permitting
- Homeowner to contractor checklist of required upgrades

## COMMUNITY SPECIFIC:

- **Molokai** – Hawaiian Home Lands, fuel tank farm, homes are priority
- **East Maui** – Isolation, smartphone app, grandfather cesspools
- **South Maui** – Swimming pools help economic recovery
- **West Maui** – Pre-identified geographic risk areas
- **North Maui** – Moratorium on accessory repairs

# RESULTS: COMPOSITE PERMITTING PRIORITIES



# AGENCY & EXPERT FEEDBACK

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- All Planners Department Meeting
  - Establish staffing patterns before disaster event
  - Cross train staff
- Statewide *Makani Pahili*
  - Full Scale, Tabletop and Functional Hurricane Exercises
  - Housing reconstruction and repairs addressed late in event
- State Multi-Hazard Mitigation Forum
  - RGPs can be federally funded after a disaster occurs, IF listed as a priority in the state's plan



# AGENCY & EXPERT FEEDBACK

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- Pacific Risk Management Ohana (PRiMO)
  - Matrix concept well received
- Molokai Vulnerability Site Assessment
  - Need to harden fuel storage line
  - Hawaiian Homes (DHHL) are flood prone, but have no County code requirements
  - How would we help them?
- Ocean Resources Management Plan Work Group
  - Offer regulators to trade between islands
  - Need MOU's to share resources & people now

# KEY RECOMMENDATIONS

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1. Engage Governor's office regarding Emergency Proclamation/Disaster Declaration process & provisions.
2. Create one stop permitting shops in communities.
3. Consider passing a temporary moratorium on new projects & rebuilding of non-habitable accessory structures.  
(Prioritize resources to restore safe, habitable structures)
4. Create mutual aid agreements for plan review.  
(Hawaii counties, mainland municipalities, or 'cloud' firms)
5. Develop deputized inspector program.  
(Retired architects, electricians, builders (CERT); OR use contractors)

# KEY RECOMMENDATIONS

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6. Require licensed inspection of all electrical repairs.  
*(Use before and after pictures and only HI Licensed contractors or their off-island subs; OR coordinate County electrical/building inspections)*
7. Expedite repairs, not reconstruction.  
*(Expedite repairs of non-conforming habitable structures, if they add strengthening measures and flood proofing)*
8. Allow repairs to existing shoreline armoring.  
*(No expansion, enlargement, or change in footprint)*
9. Create educational checklists for homeowner's to ensure their contractors repair or rebuild correctly.
10. Use the preliminary damage assessment to help the County determine substantially damaged buildings.  
*(If >50% rebuild to current flood, building and zoning code)*





08.14.2012

# GOVERNOR EMERGENCY PROCLAMATION

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1. Chapter 6E, historic preservation.

5. Chapter 46, county organization and administration.

## ***i.e. Building Permits & Zoning***

11. Chapter 180C, soil erosion and sediment control.

13. Chapter 183C, conservation district.

## ***i.e. Conservation District Use Permits***

15. Chapter 195D, conserve aquatic life, wildlife, plants.

17. Chapter 205, land use commission.

18. Chapter 205A, coastal zone management.

## ***i.e. SMA and Shoreline Permits***





# HOW DO WE STREAMLINE?

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**FEMA/Private Insurance  
Requirements**



**County  
Liability Concerns**

**1,000s of Permits  
Limited Staff  
Political Pressure**



# PRODUCT: UNMET NEEDS

ISSUE	POTENTIAL SOLUTIONS	IMPLEMENTING ACTION OR STRATEGY	LEAD AGENCY	TIME FRAME
<i>Ex. Shortage of inspectors</i>	<i>Ex. Deputize inspectors</i>	<i>Ex. Create a deputized inspector training program</i>	<i>Ex. PD, PW</i>	<i>Ex. mid-term (0-2 years)</i>

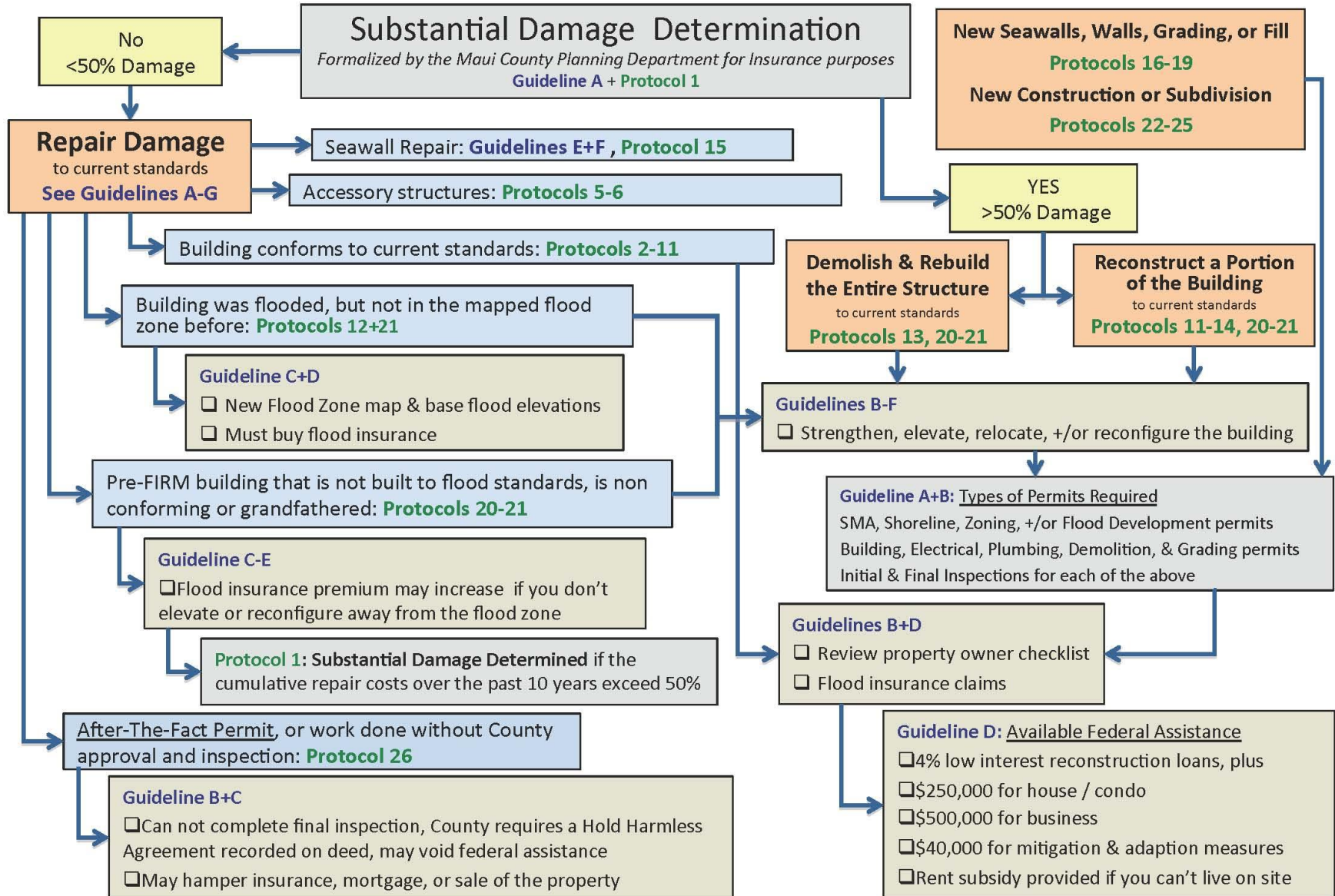
# PRODUCT: PUBLIC MESSAGING

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- Develop a communication strategy for Maui Planning officials.
  - Identify key messages by topic
  - Identify damage type response
  - Identify shoreline type response
  - Tailor messages for each community
- Compile a booklet of key messages and responses (Guidelines and Protocols).
  - 5 Guideline Topics with 68 messages
  - 10 Categories of Storm Damage with 26 Protocols

**Maui County Post-Disaster  
Reconstruction  
Guidelines & Protocols**

This flow chart should be used in conjunction with the  
**Guidelines (A-G)** and **26 Protocols** to help plan and expedite your recovery efforts





# Future Post-Disaster Permit Processing Model

## Goal:

An efficient, fair and responsive post-disaster permitting process

## Objectives:

1. Reduce # of damaged structures.
2. Rebuild lightly damaged structures immediately.
3. Issue permits for moderately to severely damaged structures within 90 days.
4. Require adaptation and mitigation.
5. Protect beaches and coastal water quality.

## Model Components:

1. Pre-Disaster Avoidance
2. Develop Post-Disaster Staffing and Support Facilities
3. Reinforce and strengthen the County's Emergency Permitting Process
4. Effective post-disaster community messaging
5. Operationalize Post-Disaster Reconstruction Task Force

## PRE-DISASTER Risk Reduction & Incentive Program

### ACTIONS

1. Direct growth away from high hazard areas
2. Strengthen/retrofit existing structures
3. Relocate threatened structures
4. Provide incentives for addressing risk

## POST-DISASTER RECONSTRUCTION PERMITTING

**Damage Assessment Team (DAT)**  
Evaluates Level of Damage (Levels 1-4)

Accessory Structures

Moratorium "Stop"

Non-Structural Damage

Proceed with Reconstruction

Level 1

- |                               |  |   |
|-------------------------------|--|---|
| 1. Hire licensed contractor   | 3. Complete on-line "ATS" permit application | 5. Permit is processed by private contractor        |
| 2. Take before/after pictures | 4. Initiate construction                     | 6. Inspection is conducted by on-island contractors |

**After the Storm (ATS) Permit issued within 90 days**

Level 2 with BMP's\*

- |                               |  |  |
|-------------------------------|--|--|
| 1. Hire licensed contractor   | 3. Complete on-line "ATS" Permit Application | 5. Permit processed by private contractor        |
| 2. Take before/after pictures | 4. Initiate construction                     | 6. Inspection conducted by on-island contractors |

**ATS Permit issued within 90 days**

Level 3 with mitigation or adaptation\*\*

- |                                    |  |   |
|------------------------------------|--|---|
| 1. Hire Lic. Architect/ Contractor | 3. File permit at regional "one-stop" center | 5. Inspection is conducted                      |
| 2. Prepare Plans                   | 4. Permit processed by aid agreement staff   | 6. Initiate construction after permit is issued |

**Permit issued within 90 days**

Level 4

- |                                    |  |   |
|------------------------------------|--|---|
| 1. Hire lic. architect/ contractor | 3. File permit at regional "one-stop" center | 5. Inspection is conducted                      |
| 2. Prepare plans                   | 4. Permit processed by aid agreement staff   | 6. Initiate construction after permit is issued |

**Permit Issued within 180 days**

## Damage Types:

Accessory Structures and "Non-Structural" Damage  
 Level 1 - < 20% structural damage  
 Level 2 - >20% but <50% structural damage; Electrical repairs  
 Level 3 - <50% structural damage  
 Level 4 - Owner proposed reconfiguration or expansion; unique environmental considerations

## Mitigation / Adaptation:

\*BMP's may include hurricane clips, continuous load path, flood proofing, etc.  
 \*\* Adaptation may include relocate, reconfigure or elevate building

# *Mahalo Nui Loa*

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